Geometry

Outdoor Activity- Similar Triangles

Goal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Relevance: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Warm-up:

The Empire State building is 1,250 ft tall. You are 6 feet tall and have a shadow of 8 ft. Determine the length of the shadow of the Empire State Building if the shadows and height are proportional.

Determining Heights of objects

Plan Stage:

1. What information will need to be collected in order to find the height of an object that is not easily measureable?

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1. How will we use this information to solve for the height?

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1. What will the proportion look like?
2. How will I find the height of the object once I set up the proportion?

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Data Collection Stage

Object 1

My Height: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

My Shadow Length: \_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Object 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Object Shadow Length: \_\_\_\_\_\_\_\_\_\_\_

Object 2

My Height: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

My Shadow Length: \_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Object 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Object Shadow Length: \_\_\_\_\_\_\_\_\_\_\_

Calculation Stage

Object 1

Objects Height: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Object 2

Objects Height: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reasonableness Stage

Does your answer for the height make sense? Justify why it does make sense and if it doesn’t, what are some possible reasons for the errors?

Object 1 Reasonableness

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